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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Taku Kodama

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EXAMINER

ABDI, AMARA

ART UNIT

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2624

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/761,910	Applicant(s) KODAMA ET AL.	
	Examiner Amara Abdi	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 35,36 and 38-41 is/are pending in the application.
- 4a) Of the above claim(s) 1-34,37 and 42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 35,36 and 38-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's response to the last office action, filed October 27, 2008 has been entered and made of record.
2. Applicant's arguments with respect to claim 35 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sano et al. (US 7,127,117) in view of Ihara (US 7,388,682) and Weitbruch (US 6,366,706).

(1) Regarding claims 35 and 40:

Sano et al. teach an image compression method and apparatus (col. 1, lines 19-20) comprising:

a compression unit (step S1 in Fig. 31) to generate encoded data by dividing an input image into a plurality of divided regions (col. 20, lines 11-12) and perform a compression process for each of the divided regions (col. 20, lines 6-7);

a storage (101 in Fig. 33) to store the encoded data generated by the compression unit (col. 21, lines 20); and

an expansion unit (S16 in Fig. 32) to expand the encoded data stored in the storage (col. 20, lines 47-50).

Sano et al. do not teach explicitly a first setting unit to set one or a plurality of aspect ratios and one or plurality of sizes corresponding to a display unit of an external device; and a second setting unit to set a plurality of image regions within the input image, one of the plurality of image regions set by said second setting unit having at least one aspect ratio and at least one size set by the first setting unit, and to set boundaries of the divided regions subject to the compression process of the compression unit so as to match boundaries of the image regions.

(a) Obviousness in view of Ihara

Ihara, in analogous environment, teaches an image processing method and apparatus, where setting one or a plurality of aspect ratios and /or one or a plurality of sizes corresponding to a display unit of the external device (col. 9, lines 53-57).

It is desirable to simplify the processing of printing to cope with variable printing demands without imposing severe load on the printing apparatus. The Ihara's approach, where setting one or a plurality of aspect ratios and sizes is to achieve this goal. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention, to apply the Ihara teaching, where setting one or a plurality of aspect ratios and sizes, with the Sano et al. teaching, because such combination simplifies the processing of printing to cope with variable printing demands without imposing severe load on the printing apparatus (col. 1, lines 29-36).

(b) Obviousness in view of Weitbruch:

Weitbruch, in analogous environment, teaches automatic aspect format detection in digital video pictures, where setting a plurality of image regions (area B1i, B2i in Fig. 5) within the input image (the input image is read as image of Fig. 5) (Fig. 5, col. 4, lines 42-47), one of the plurality of image regions set by said second setting unit having at least one aspect ratio (16:9(2)) (col. 4, lines 45-46) and at least one size (the size is read as area B1i, B2i in Fig. 5) set by the first setting unit (screen aspect ratio: 16:9), (as shown in Ihara reference (col. 9, line 60), the screen aspect ratio is "16:9" which is the same as one of the aspect ratio of Weitbruch reference "16:9"), and to set boundaries (borders) of the divided regions subject to the compression process of the compression unit so as to match boundaries of the image regions (Fig. 7, col. 5, lines 31-39), (the matching boundaries of the image regions is read as the same concept as the indicating if the pixel is on correct horizontal border (boundary) or frontier, or not on horizontal frontier, or on horizontal frontier not corresponding to the correct horizontal frontier).

It is desirable to provide a robust algorithm for the automatic detection of the real active video format of the received video signal. The Weitbruch's approach, where setting at least of the aspect ratio as the same as the screen aspect ratio set by Ihara, is to achieve this goal. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention, to apply the Weitbruch teaching, where setting at least of the aspect ratio as the same as the screen aspect ratio set by Ihara, with the combination Sano et al. and Ihara, because such feature provides a robust algorithm for the automatic detection of the real active video format of the received video signal. The

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algorithm should provide the information which aspect format is present in the received video signal so that the zoom operation can be made accordingly (col. 1, lines 47-52).

(2) Regarding claim 38:

Sano et al. teach an electronic camera (digital camera) (col. 1, line 32) comprising:

an imaging unit (111 in Fig. 33) to pick up an image (col. 1, lines 32-33); and

an image processing apparatus (54 in Fig. 2, col. 2, lines 40-41) comprising:

a compression unit (step S1 in Fig. 31) to generate encoded data by dividing an input image into a plurality of divided regions (col. 20, lines 11-12) and perform a compression process for each of the divided regions (col. 20, lines 6-7);

a storage (101 in Fig. 33) to store the encoded data generated by the compression unit (col. 21, lines 20); and

an expansion unit (S16 in Fig. 32) to expand the encoded data stored in the storage (col. 20, lines 47-50), wherein the compression unit (step S1 in Fig. 31) of the image processing apparatus (54 in Fig. 2, col. 2, lines 40-41) carries out the compression process (col. 20, lines 11-12) with respect to an input image (111 in Fig. 33) that is picked up by the imaging unit (col. 1, lines 32-33).

Sano et al. do not teach explicitly a first setting unit to set one or a plurality of aspect ratios and one or plurality of sizes corresponding to a display unit of an external device; and a second setting unit to set a plurality of image regions within the input image, one of the plurality of image regions set by said second setting unit having at least one aspect ratio and at least one size set by the first setting unit, and to set

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boundaries of the divided regions subject to the compression process of the compression unit so as to match boundaries of the image regions.

(a) Obviousness in view of Ihara

Ihara, in analogous environment, teaches an image processing method and apparatus, where setting one or a plurality of aspect ratios and /or one or a plurality of sizes corresponding to a display unit of the external device (col. 9, lines 53-57).

It is desirable to simplify the processing of printing to cope with variable printing demands without imposing severe load on the printing apparatus. The Ihara's approach, where setting one or a plurality of aspect ratios and sizes is to achieve this goal. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention, to apply the Ihara teaching, where setting one or a plurality of aspect ratios and sizes, with the Sano et al. teaching, because such combination simplifies the processing of printing to cope with variable printing demands without imposing severe load on the printing apparatus (col. 1, lines 29-36).

(b) Obviousness in view of Weitbruch:

Weitbruch, in analogous environment, teaches automatic aspect format detection in digital video pictures, where setting a plurality of image regions (area B1i, B2i in Fig. 5) within the input image (the input image is read as image of Fig. 5) (Fig. 5, col. 4, lines 42-47), one of the plurality of image regions set by said second setting unit having at least one aspect ratio (16:9(2)) (col. 4, lines 45-46) and at least one size (the size is read as area B1i, B2i in Fig. 5) set by the first setting unit (screen aspect ratio: 16:9), (as shown in Ihara reference (col. 9, line 60), the screen aspect ratio is "16:9" which is the

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same as one of the aspect ratio of Weitbruch reference "16:9"), and to set boundaries (borders) of the divided regions subject to the compression process of the compression unit so as to match boundaries of the image regions (Fig. 7, col. 5, lines 31-39), (the matching boundaries of the image regions is read as the same concept as the indicating if the pixel is on correct horizontal border (boundary) or frontier, or not on horizontal frontier, or on horizontal frontier not corresponding to the correct horizontal frontier).

It is desirable to provide a robust algorithm for the automatic detection of the real active video format of the received video signal. The Weitbruch's approach, where setting at least of the aspect ratio as the same as the screen aspect ratio set by Ihara, is to achieve this goal. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention, to apply the Weitbruch teaching, where setting at least of the aspect ratio as the same as the screen aspect ratio set by Ihara, with the combination Sano et al. and Ihara, because such feature provides a robust algorithm for the automatic detection of the real active video format of the received video signal. The algorithm should provide the information which aspect format is present in the received video signal so that the zoom operation can be made accordingly (col. 1, lines 47-52).

5. Claims 36, 39, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sano et al., Ihara, and Weitbruch, as applied to claims 35, 38, and 40 above, and further in view of Harada et al. (US 6,853,466).

Sano et al., Ihara, and Weitbruch teach the parental claims 35, 38, and 40. However, Sano et al., Ihara, and Weitbruch do not teach explicitly the setting of image region as region of interest.

Harada et al., in analogous environment, teach an image processing apparatus and method, where setting the image region as region of interest (col. 18, lines 31-36).

It is desirable to improve the encoding efficiency of the overall image. The Harada's approach, where setting the image region as region of interest is to achieve this goal. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention, to apply the Harada et al. teaching, where setting the image region as region of interest, with the combination Sano et al., Ihara, and Weitbruch, because such feature improves the encoding efficiency of the overall image (col. 1, lines 51-56).

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information:

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amara Abdi whose telephone number is (571)270-1670. The examiner can normally be reached on Monday through Friday 8:00 Am to 4:00 PM E.T..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jingge Wu can be reached on (571) 272-7429. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jingge Wu/

Supervisory Patent Examiner, Art Unit 2624

/Amara Abdi/

Examiner, Art Unit 2624